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AUG 22 2008

1103326-0901

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Peter Nordberg  
Serial No. : 10/561,199  
Filed : December 19, 2005  
For : Novel Imidazopyridine Compound II with Therapeutic Effect  
Examiner : Kadambi, Geeta  
Group Art Unit : 4131

**CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. 1.8**

I hereby certify that this paper is being facsimile transmitted to the U.S. Patent and Trademark Office on the date indicated below at the facsimile number 571-273-8300.

John M. Genova 32,224  
Agent Name PTO Reg. No.

/John M. Genova/ 22 August 2008  
Signature Date of Signature

Mail Stop Amendment  
Commissioner for Patents  
Box 1450  
Alexandria, VA 22313-1450

Attn: **Examiner Geeta Kadambi**  
Facsimile: **571-273-8300**  
Pages: **8 pages total**

**Declaration of Peter Nordberg**  
(Under 37 C.F.R. §1.132)

Sir:

I, Peter Nordberg, declare as follows:

1. I am a citizen of Sweden. I graduated in 1982 from Chalmers University of Technology with a Master of Science degree in Chemical Engineering.
2. The assignee of the referenced application is AstraZeneca AB. I am presently employed by AstraZeneca and my current position is Associate Principal Scientist. I have held this position since 2004. My curriculum vitae is attached to this Declaration as Exhibit A. A list of publications that I co-authored and patents of which I am a named inventor is attached as Exhibit B.

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3. I have read and understood the referenced patent application. I am the named inventor and am familiar with the invention described and claimed in the referenced patent application.

4. I have been informed that the claimed invention has been rejected as being unpatentable over US 6,313,137 to Amin et al. ("Amin") on the grounds that it would have been obvious to make a similar salt having a similar therapeutic effect based on the disclosure provided by Amin.

5. In response to the prior art rejection, I conducted the following comparative study which supplements the dissolution data appearing at pages 17-18 of the application. Specifically, I compared the solubility, in fasted state simulated intestinal fluid (FaSSIF), of the claimed compound with the compound of Example 1.3 of Amin. The method followed the procedure disclosed on pages 17-18 of the application. The comparative data is summarized in the following table:

Structure	Compound	Solubility μM 1 h	Solubility μM 24 h	Solubility μM 24 h (base form)
	Present inv. (Mesylate salt)	279	218	48
	Example 1.3 of Amin (Mesylate salt)	19	17	13

6. The data demonstrates an unexpected and superior dissolution behavior of the claimed compound as compared to that of Example 1.3 of Amin. Specifically, the solubility of the base form and mesylate salt of the claimed invention, measured after 24 hours, was 48 μmol/l and 218 μmol/l, respectively. In contrast, the solubility of the base form and mesylate salt of the compound of example 1.3 of Amin, measured after 24 hours, was 13 μmol/l and 17 μmol/l, respectively. It is my opinion that the above biological test data demonstrates a superior unexpected result that is not suggested by Amin.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated:

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Peter Nordberg

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Attorney Docket No.: 110326-0901  
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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated: August 18, 2008

  
Peter Nordberg  
Peter Nordberg

**EXHIBIT A****CURRICULUM VITAE**

<b>Family name:</b>	Nordberg	
<b>Given names:</b>	Mats, <u>Peter</u>	
<b>Date of birth:</b>	March 9, 1958	
<b>Citizenship:</b>	Swedish	
<b>Education:</b>	Master of Science in Chemical Engineering Chalmers University of Technology	September 23, 1982
<b>Previous positions:</b>	Research Scientist Medicinal Chemistry AstraHässle AB	August 16, 1982
	Assoc. Principal Scientist Discovery Project Leader AstraZeneca AB	2002- 2003
<b>Present position:</b>	Assoc. Principal Scientist AstraZeneca AB	2004 -
<b>Publications:</b>	see separate paper	

## Publications

Lindberg, Per; *Nordberg, Peter*; Alminger, Tomas; Braendstroem, Arne; Wallmark, Bjoern. The mechanism of action of the antisecretory agent omeprazole. *J. Med. Chem.* (1986), 29(8), 1327-9. CODEN: JMCMAR ISSN:0022-2623. CAN 105:54396 AN 1986:454396 CAPLUS

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Braendstroem, Arne; Lindberg, Per; Bergman, Nils Aake; Alminger, Tomas; Ankner, Kjell; Junggren, Ulf; Lamm, Bo; *Nordberg, Peter*; Erickson, Magnus; et al. Chemical reactions of omeprazole and omeprazole analogs. I. A survey of the chemical transformations of omeprazole and its analogs. *Acta Chem. Scand.* (1989), 43(6), 536-48. CODEN: ACHSE7 CAN 112:118679 AN 1990:118679 CAPLUS

Braendstroem, Arne; Lindberg, Per; Bergman, Nils Aake; Alminger, Tomas; Ankner, Kjell; Junggren, Ulf; Lamm, Bo; *Nordberg, Peter*; Erickson, Magnus; et al. Chemical reactions of omeprazole and omeprazole analogs. I. A survey of the chemical transformations of omeprazole and its analogs [Erratum to document cited in CA112(13):118679n]. *Acta Chem. Scand.* (1990), 44(3), 297. CODEN: ACHSE7 CAN 113:6191 AN 1990:406191 CAPLUS

## Patents

Ankner, Kjell Fred; Braendstroem, Arne Elof; Lindberg, Per Lennart; *Nordberg, Mats Peter*; Wallmark, Bjoern Morgan Gabriel. Substituted benzimidazoles and their use for inhibiting gastric acid secretion. *Eur. Pat. Appl.* (1986), 44 pp. CODEN: EPXXDW EP 181846 A1 19860521 CAN 105:115068 AN 1986:515068 CAPLUS

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Briving, Carin Birgitta; Carlsson, Stig Ake Ingemar; Lindberg, Per Lennart; Mattsson, Annic Hille; *Nordberg, Mats Peter*; Wallmark, Bjoern Morgan Gabriel. Preparation and formulation of benzimidazoles active as anti-ulcer agents. *Eur. Pat. Appl.* (1988), 30 pp. CODEN: EPXXDW EP 266326 A1 19880504 CAN 109:129013 AN 1988:529013 CAPLUS

Briving, Carin; Elebring, Marie; Carlsson, Stig; Carter, Robert; Kuchler, Thomas; *Nordberg, Peter*; Starke, Ingemar; Svensson, Arne. 7-(phenylethyl)pyrrolo[2,3-b]pyridine derivatives, a method for their preparation and their use as gastrointestinal inflammatory disease inhibitor. *Eur. Pat. Appl.* (1992), 47 pp. CODEN: EPXXDW EP 509974 A1 19921021 CAN 118:101981 AN 1993:101981 CAPLUS

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Hersloef, Margareta; *Nordberg, Peter*; Soerensen, Henrik. Preparation of novel imidazopyridine carbonitriles for inhibiting vacuolar H<sup>+</sup>-ATPase in osteoclast cells. PCT Int. Appl. (2001), 25 pp. CODEN: PIXXD2 WO 0125237 A1 20010412 CAN 134:280843 AN 2001:265420 CAPLUS

Amin, Kosrat; Dahlstroem, Mikael; *Nordberg, Peter*. Crystal forms of 2,3-dimethyl-8-(2-ethyl-6-methylbenzylamino)imidazo[1,2-a]pyridine-6-carboxamide. PCT Int. Appl. (2002), 39 pp. CODEN: PIXXD2 WO 2002060440 A1 20020808 CAN 137:159334 AN 2002:594674 CAPLUS

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Giordanetto, Fabrizio; Inghardt, Tord; *Nordberg, Peter.* Preparation of thieno[3,2-d]pyrimidin-4(3H)-one derivatives as MCH agonists. PCT Int. Appl. (2007), 44pp. CODEN: PIIXD2 WO 2007011284 A1 20070125 CAN 146:184480 AN 2007:86227 CAPLUS